

ABSTRACT

A segmented-tree system for web browser display of a selected part of a tree-structured directory of hierarchically-related entities in a computer system. In the segmented-tree design of the present system, only the amount of information necessary to render the part of the tree in which the user is interested is transmitted from a server to the browser client. The server maintains information describing the complete tree, and it serves this information to the client in segments called 'views'. The tree state for a particular client is maintained in relatively small data strings transferred back and forth. The server is thereby enabled to handle tree requests from many clients without special synchronization or the storage of the client state. Because the client/server tree state is kept in sync as the user navigates and modifies objects in the tree, the browser display always represents the true state of the tree.